

# UNCLASSIFIED

FY 2003 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 2002

BUDGET ACTIVITY: 7      PROGRAM ELEMENT: 0205658N  
 PROGRAM ELEMENT TITLE: NAVAL FLEET/FORCE TECHNOLOGY  
 INNOVATION OFFICE

(U) (COST): (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0834 Laboratory Fleet Support	*7,018	4,901	4,801	4,923	4,770	4,865	4,964	CONT.	CONT.
R2371 Lash Hyperspectral	*9,690	4,262	-	-	-	-	-	-	49,000
R2701 Lash Study	*8,721	5,055	-	-	-	-	-	-	14,770
R9111 Littoral/Mine Countermeasures Rapid Response	-	4,262	-	-	-	-	-	-	4,262
	* 25,429	18,480	4,801	4,923	4,770	4,865	4,964	CONT.	CONT.

\* Funding was executed in PE 0603238N.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The purpose of the Naval Fleet/Force Technology Innovation Office (NFFTIO) is to ensure that the Fleet/Force (F/F) helps shape the Department of the Navy (DoN) investment in Science and Technology (S&T), develop teaming relationships to rapidly demonstrate and transition technology, support development of technology-based capability options for naval forces, and enable warfighting innovations based on technical and conceptual possibilities. This is accomplished through proactive connectivity and collaboration between DoN S&T and Joint, Navy, and Marine Corps commands worldwide. The program accomplishes this through several methods. It provides on-the-spot Naval Research Science Advisors (NRSAs) Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. In addition, NFFTIO facilitates and disseminates Command Capability Issues (CCIs) provided by the F/F Commanders to the Director of Navy Test and Evaluation and Technology Requirements (OPNAV N091). NFFTIO also collaborates with the F/F to identify specific solutions to known operational capability needs and provides the means to develop and demonstrate prototype systems. The result is that NFFTIO provides insight into issues associated with Naval Warfighting Capabilities,

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thereby influencing long term S&T programs. The program also develops a cadre of civilian scientists and engineers who, upon completion of their NFFTIO NRSA tours, return to the Naval technical community with first hand knowledge of the F/F and warfighting issues. NFFTIO enables a continuous collaboration between the warfighters, the technical community, and strategic development commands.

(U) PROGRAM CHANGE FOR TOTAL P.E.:

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
(U) FY 2002 President's Budget:	23,557	4,945	
Execution Adjustment	+2,286		
Congressional Plus-Ups		+13,700	
Section 8123: Management Reform Initiative		- 165	
SBIR	- 414		
(U) FY 2003 President's Budget Submission:	25,429	18,480	4,801

(U) CHANGE SUMMARY EXPLANATION:

(U) Schedule: Not applicable

(U) Technical: Not applicable

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(U) (COST): (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 2001 ACTUAL	FY 2002 ESTIMATE	FY 2003 ESTIMATE	FY 2004 ESTIMATE	FY 2005 ESTIMATE	FY 2006 ESTIMATE	FY 2007 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0834      Laboratory Fleet Support									
	* 7,018	4,901	4,801	4,923	4,770	4,865	4,964	CONT.	CONT.

\* Funding was executed in PE 0603238N.

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(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under OPERATIONAL SYSTEMS DEVELOPMENT because it leverages long-term S&T investments to meet operational capability needs, it collaborates with the F/F to identify specific solutions to known operational capability needs, and provides some means to develop and demonstrate prototype systems.

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PROGRAM ELEMENT: 0205658N

PROJECT NUMBER: R0834

PROGRAM ELEMENT TITLE: NAVAL FLEET/FORCE TECHNOLOGY  
INNOVATION OFFICE

PROJECT TITLE: LAB FLT SUPPORT

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS

### 1. (U) FY 2001 ACCOMPLISHMENTS:

(U) (7,018) Facilitated and disseminate the CCIs provided by the F/F Commanders. Leveraged investments to provide on the spot NRSAs to Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. Assisted NRSAs in obtaining working experience with high-level decision-makers and operators in an effort to develop technologies for transition to the F/F. Collaborated with the F/F to identify specific solutions to known operational capability needs and provided the means to develop and demonstrate prototype systems. Helped move S&T to the operational F/F rapidly, leveraged long-term S&T investments to meet operational F/F capability needs, and provided a method for the Research, Development, Testing and Evaluation (RDT&E) community to surge in response to real world crises. Transitioned the technology insertions that were initiated in prior years to operational use and acquisition programs.

### 2. (U) FY 2002 PLAN:

(U) (4,901) Facilitate and disseminate the CCIs provided by the F/F commanders. Leverage the investment to provide on the spot NRSAs to Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. Assist these NRSAs to obtain experience working with high-level decision-makers and operators to develop technologies for transition to the F/F. Collaborate with the F/F to identify specific solutions to known operational capability needs and provide the means to develop and demonstrate prototype systems. Help move S&T to the operational F/F rapidly, leverage long-term S&T investments to meet operational F/F capability needs, and provide a method for the RDT&E community to surge in response to real world crises. Transition the technology insertions that were initiated in prior years to operational use and acquisition programs.

### 3. (U) FY 2003 PLAN:

(U) (4,801) Facilitate and disseminate the CCIs provided by the F/F commanders. Leverage the investment to provide on the spot NRSAs to Joint, Navy, and Marine Corps operational and strategic planning commands worldwide. Assist these NRSAs to obtain experience working with high-level decision-makers and operators to develop technologies for transition to the F/F. Collaborate with the F/F to identify specific solutions to known operational capability needs and provide the means to develop and demonstrate prototype systems. Help move S&T to the operational F/F rapidly, leverage long-term S&T investments to meet operational F/F capability needs,

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PROJECT TITLE: LAB FLT SUPPORT

and provide a method for the RDT&E community to surge in response to real world crises. Transition the technology insertions that were initiated in prior years to operational use and acquisition programs.

B. (U) OTHER PROGRAM FUNDING SUMMARY:

(U) RELATED RDT&E:

- (U) PE 0601152N In-House Lab Independent Research
- (U) PE 0601153N Defense Research Sciences
- (U) PE 0602114N Power Projection Applied Research
- (U) PE 0602123N Force Protection Applied Research
- (U) PE 0602131M Marine Corps Landing Force Tech
- (U) PE 0602235N Common Picture Applied Research
- (U) PE 0602236N Warfighter Sustainment Applied Research
- (U) PE 0602271N RF Systems Applied Research
- (U) PE 0602435N Ocean Warfighting Environment Applied Research
- (U) PE 0602747N Undersea Warfare Applied Research
- (U) PE 0602782N Mine & Expeditionary Warfare Applied Research
- (U) PE 0603114N Power Projection Advanced Tech
- (U) PE 0603123N Force Protection Advance Tech
- (U) PE 0603235N Common Picture Advanced Technology
- (U) PE 0603236N Warfighter Sustainment Advance Tech
- (U) PE 0603271N RF Systems Advanced Tech

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(U) PE 0603640M MC Advance Tech Demo  
(U) PE 0603727N Joint Experimentation  
(U) PE 0603729N Warfighter Protection Advanced Tech  
(U) PE 0603747N Undersea Warfare Advanced Technology  
(U) PE 0603758N Navy Warfighting Experiments & Demo  
(U) PE 0603782N Mine & Expeditionary Warfare Advanced Tech

C. (U) SCHEDULE PROFILE: Not applicable.

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## CONGRESSIONAL PLUS-UPS

This section describes the following Congressional Plus-Ups which were in this program element. FY2001 Plus-Ups were executed in Program Element 0603238:

Littoral Airborne Sensor/Hyperspectral (LASH), Littoral/Mine Countermeasures Rapid Response, Range Airship/LASH Study for Range Enhancements

### 1. FY 2001 Congressional Plus-ups:

- (U) (\$10,000), Littoral Airborne Sensor/Hyperspectral (LASH) - Funds provided focused on the improvements to target detection signal to noise ratios and reduction of false alarms due to environmental clutter. The LASH sensor participated in fleet exercises with Seventh Fleet to test improvements under real conditions with cooperative targets. Program objectives were guided by CINCPACFLT capability metrics, and a test to meet those requirements was conducted. The analysis of this significant program milestone is underway. Other tests of the LASH sensor's ability to distinguish overland, littoral targets were conducted. Efforts to design and construct a hyperspectral system based upon the existing LASH sensor, but now effective against near shore antipersonnel mine fields are underway (executed in PE 0603238N).
- U) (\$8,721), Range Airship/LASH Study for Range Enhancements - Funds provided focused on project initiation, contract negotiation, and preliminary design efforts. Naval capability metrics provided objectives for design of the airship. This effort will design a new class of airship that is larger and has greater payload capabilities than previous classes (6500 Ib). Close coordination has been developed with Commander, Naval Region, Hawaii. Progress was dominated by a false start by the prime contractor to initiate the detailed design of the airship (executed in PE 0603238N).

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## 1. FY 2002 Congressional Plus-ups

- (U) (\$4,300), Littoral Airborne Sensor/Hyperspectral (LASH) - Funds provided will develop the LASH hyperspectral sensor to improve ASW metrics by reducing false alarms due to environmental clutter. Improvements to detection algorithms will be made through a systematic addressing of the most prevalent false alarm signatures. Testing during fleet exercises will continue, and CINCPACFLT will be consulted to update the capability metrics. Overland testing will determine the value of this over water sensor to use for land targets and to discriminate against land clutter.
- (U) (\$4,262), Littoral/Mine Countermeasures Rapid Response - Funds provided will augment the development of a hyperspectral based, airborne sensor for near shore minefield classification. Funds will incorporate improved Navigation/Stabilization system capabilities into the Pod/Sensor system. Data collection flights will be performed to facilitate automatic detection algorithm development. Participation by the new LASH sensor in Exercise Millennium Challenge with the Navy's Very Shallow Water Detachment will be conducted to detect mines in the VSW and Surf Zone and to test capabilities against metrics determined in concert with OPNAV, Navy acquisition, and Marine Corps Systems Command.
- (U) (\$5,055), Range Airship/LASH Study for Range Enhancements - Funds provided will contribute to the design of a new class of airship for naval range surveillance at Pacific Missile Test Facility and for base protection at Pearl Harbor. The new platform will be used to deploy other emerging sensors such as the LASH hyperspectral pod, and communications and networking technologies. The airship handling, lifting, and maneuver characteristics will be tested during demonstrations of the airship in Hawaii water fleet exercises.

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PROJECT TITLE: LAB FLT SUPPORT

Exhibit R-3 Cost Analysis (page 1)							Date: February 2002				
APPROPRIATION/BUDGET ACTIVITY RDT&E,N 7			PROGRAM ELEMENT 0205658N				PROJECT NAME AND NUMBER Lab Flt Support R0834				
Cost Categories	Contract Method & Type	Performing Activity & Location	FY-01 Cost	FY-01 Award Date	FY-02 Cost	FY-02 Award Date	FY-03 Cost	FY-03 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Product Development*	Various	Various	*7,018	TBD	4,901	TBD	4,801	TBD	Cont.	Cont.	Cont.
Subtotal Product Development			*7,018		4,901		4,801		Cont.	Cont.	Cont.
Remarks:											
*Funding was executed in PE 0603238N											
Total Cost			7,018		4,901		4,801		Cont.	Cont.	Cont.

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PE/Project Cost Breakdown  
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